

ABSTRACT

Presented is a flow metering valve that can precisely and accurately regulate the volume of the fluid-flow through entire range of measured flows. The valve comprises tubular body and moving stem in it. One end portion designated as a leading has threadedly engaged stem and body. Another portion designated as a regulating has body with the stem extended to fill the tubular space longitudinally separating inlet and outlet ports. At least one of the surfaces – the inner of the body or the outer of the stem - is threaded and have their threads truncated by tapering truncation from the crest to the root. The truncated thread forms channel having cross-section tapering from one port to the other. The axially moving stem gradually changes the cross-section of the channel providing variable flow communication between the two ports. The fluid flow changes proportionally to the cross-section of the formed channel. The valve provides very fine regulation of the flow within four orders of magnitude.